

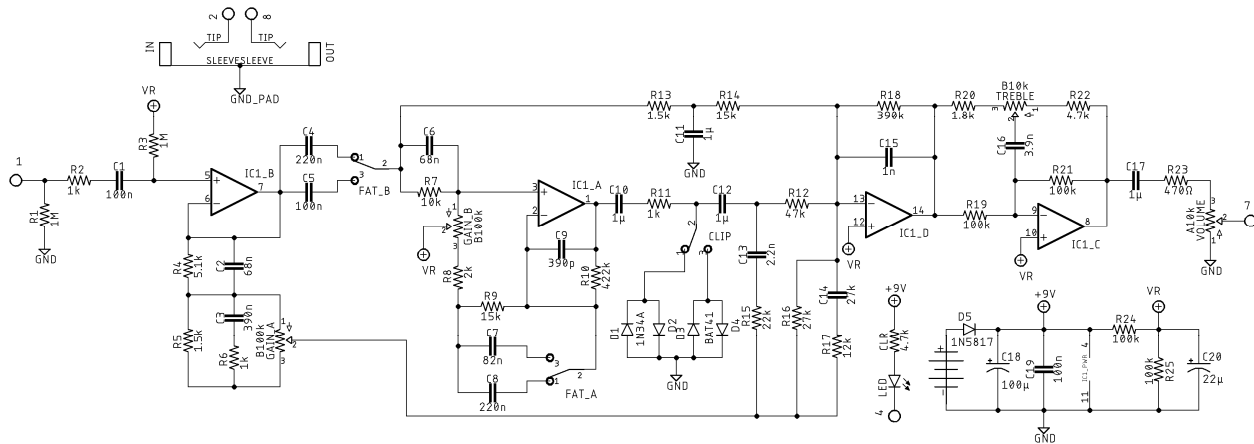


SKELE KLONE 2

DESCRIPTION

The SKELEKLONE Mk. II is based on the Bare Bone Klone concept put forth by FSB member *earthtonesaudio*. The idea being that the charge pump in the Klone is unnecessary, as the only reason it's there is to keep the 2nd opamp from clipping. However, since clipping diodes are in the signal path before signal reaches that opamp, and the fact that the 2nd opamp in a Klone can clip even with a charge pump, the presence of the charge pump isn't really needed. Especially if you use op-amps that sound better when distorted. To simplify things, I laid this circuit out to use a quad opamp instead of 2 dual opamps. The TL074 will work, but a higher quality quad (OPA4134 for example) may sound better. The Mk. II offers additional tone shaping switches in the form of Fat and Clipping switches respectively and is laid out specifically for a 125B with top mounted jacks.

SCHEMATIC



BOM

Resistors

R1	1M
R2	1k
R3	1M
R4	5.1k
R5	1.5k
R6	1k

R7	10k
R8	2k
R9	15k
R10	422k
R11	1k
R12	47k
R13	1.5k

R14	15k
R15	22k
R16	27k
R17	12k
R18	390k
R19	100k
R20	1.8k
R21	100k
R22	4.7k
R23	470Ω
R24	100k
R25	100k
CLR	4.7k

Capacitors

C1	100n
C2	68n
C3	390n
C4	220n
C5	100n
C6	68n
C7	82n
C8	220n
C9	390p
C10	1μ
C11	1μ
C12	1μ
C13	2.2n
C14	27n

C15	1n
C16	3.9n
C17	1μ
C18	100μ
C19	100n
C20	22μ

Semiconductors

D1	1N34A
D2	1N34A
D3	1N4148
D4	1N4148
D5	1N5817
IC1	TL074 or similar
LED	3 or 5mm

Electromechanical

Clip	SPDT on/off/on
Fat	DPDT on/on
Gain	B100k dual gang
Treble	B10k
Volume	A10k

Notes

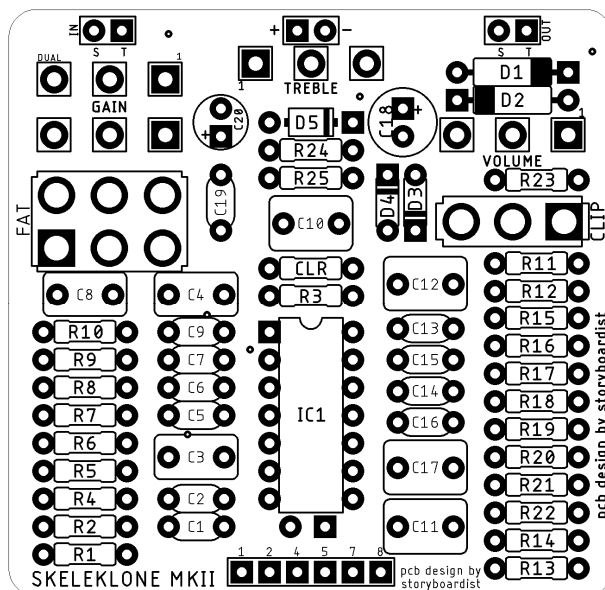
I highly recommend using sockets for D3-4 and experimenting with other diodes. Using an on/off/on SPDT for the Clip switch allows for germanium/diode lift/silicon clipping options. If you don't want the diode lift option, just use an on/on SPDT.

SHOPPING LIST

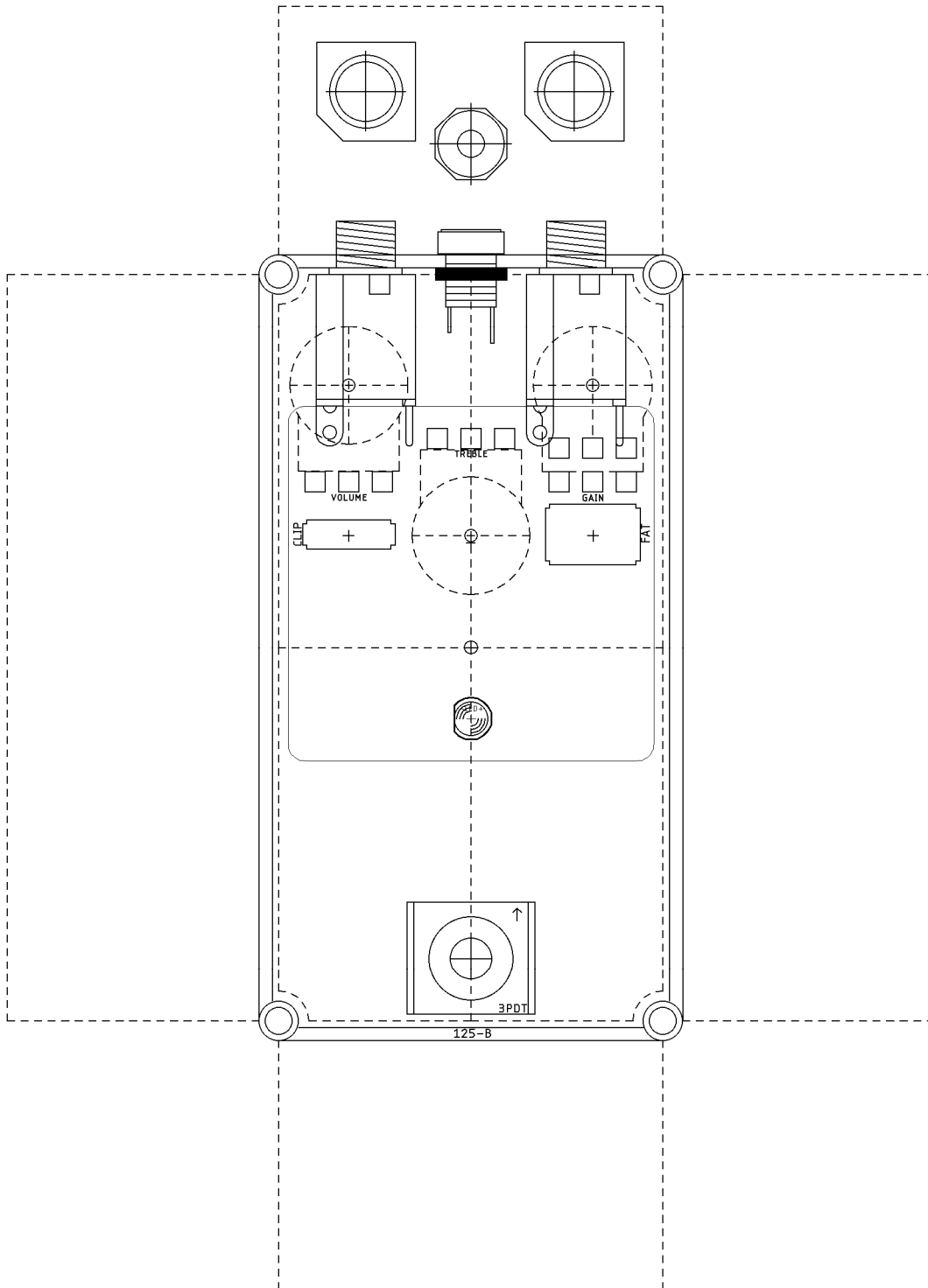
Value	Type (suggested)	Quantity
470Ω	¼ watt metal or carbon film	1
1k	¼ watt metal or carbon film	3
1.5k	¼ watt metal or carbon film	2
1.8k	¼ watt metal or carbon film	1
2k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	2
5.1k	¼ watt metal or carbon film	1
10k	¼ watt metal or carbon film	1
12k	¼ watt metal or carbon film	1
15k	¼ watt metal or carbon film	2
22k	¼ watt metal or carbon film	1
27k	¼ watt metal or carbon film	1

47k	¼ watt metal or carbon film	1
100k	¼ watt metal or carbon film	4
390k	¼ watt metal or carbon film	1
422k	¼ watt metal or carbon film	1
1M	¼ watt metal or carbon film	2
390p	Ceramic	1
1n	Film	1
2.2n	Film	1
3.9n	Film	1
27n	Film	1
68n	Film	2
82n	Film	1
100n	Film	3
220n	Film	2
390n	Film	1
1µ	Film	4
22µ	Electrolytic (35v or higher)	1
100µ	Electrolytic (35v or higher)	1
1N34A	Germanium diode	2
1N4148	Silicon switching diode	2
1N5817	Schottky rectifier diode	1
TL074	Quad opamp	1
3 or 5mm LED		1
A10k	16mm right angle PC mount	1
B10k	16mm right angle PC mount	1
B100	16mm right angle dual gang PC mount	1
DPDT	On/on toggle switch	1
SPDT	On/off/on toggle switch	1

LAYOUT



DRILL TEMPLATE (125B)



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For DIY and small commercial applications.
Not for non-peer to peer resale.